IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF SOUTH CAROLINA CHARLESTON DIVISION

IN RE: AQUEOUS FILM-FORMING FOAMS PRODUCTS LIABILITY LITIGATION	MDL No. 2:18-mn-2873-RMG This Document Relates to City of Dayton v. 3M Company et al, 2:18-cv-03496-RMG
)))
CITY OF DAYTON,)
Plaintiff,)))
-against -))
3M COMPANY, f/k/a Minnesota Mining and Manufacturing Co., BUCKEYE FIRE EQUIPMENT COMPANY, CHEMGUARD, INC., TYCO FIRE PRODUCTS L.P., NATIONAL FOAM, INC., E.I. DU PONT DE NEMOURS AND COMPANY, individually and as successor in interest to DuPont Chemical Solutions Enterprise, THE CHEMOURS COMPANY, individually and as successor in interest to DuPont Chemical Solutions Enterprise, THE CHEMOURS COMPANY FC, L.L.C., individually and as successor in interest to DuPont Chemical Solutions Enterprise, DYNAX CORPORATION, CORTEVA, INC., and DU PONT DE NEMOURS INC., f/k/a DOWDUPONT, INC.	SECOND AMENDED COMPLAINT SECOND AMENDED COM

SECOND AMENDED COMPLAINT

Plaintiff, City of Dayton, by and through its attorneys NAPOLI SHKOLNIK PLLC, PLEVIN & GALLUCCI COMPANY, LPA and DYER, GAROFALO, MANN & SCHULTZ, as and for its First Amended Complaint against Defendants 3M Company, f/k/a Minnesota Mining and Manufacturing Co., Buckeye Fire Equipment Company, Chemguard, Inc., Tyco Fire Products L.P., National Foam, Inc., E. I. Du Pont De Nemours and Company, individually and as successor in interest to DuPont Chemical Solutions Enterprise, The Chemours Company, individually and as successor in interest to DuPont Chemical Solutions Enterprise, and The Chemours Company FC, L.L.C., individually and as successor in interest to DuPont Chemical Solutions Enterprise, and DYNAX CORPORATION, CORTEVA, INC., and DU PONT DE NEMOURS INC., f/k/a DowDupont, Inc.; (collectively "Defendants") alleges as follows:

INTRODUCTION

1. Plaintiff, the City of Dayton (hereinafter the "City"), brings this action against 3M Company, f/k/a Minnesota Mining and Manufacturing Co. ("3M"), Buckeye Fire Equipment Company ("Buckeye"), Chemguard, Inc. ("Chemguard"), Tyco Fire Products L.P. (successor-ininterest to Ansul Co.) ("Tyco"), National Foam, Inc. ("National Foam"), E. I. Du Pont De Nemours and Company, individually and as successor in interest to DuPont Chemical Solutions Enterprise (DuPont), The Chemours Company, individually and as successor in interest to DuPont Chemical Solutions Enterprise ("Chemours"), and The Chemours Company FC, L.L.C., individually and as successor in interest to DuPont Chemical Solutions Enterprise ("Chemours"), to recover the substantial past and future damages for the treatment and removal of perand polyfluoroalkyl substances ("PFAS") contamination of its public drinking water supply

wells by treating the water in those wells to eliminate contamination caused and/or created by Defendants' products, and to protect the public health, safety and welfare of its customers.

- 2. Defendants 3M, Buckeye, Chemguard, Tyco, National Foam, DuPont, Chemours and Chemours FC (collectively referred as "AFFF Manufacturers") manufactured, marketed, and/or sold aqueous film-forming foam ("AFFF") and/or the PFAS constituents of AFFF, a firefighting product used to control and extinguish aviation, marine, fuel, and other flammable liquid fires, that was used in areas around the City of Dayton and that foreseeably contaminated the groundwater.
- 3. The AFFF Manufacturers' products contained perfluorooctanoic acid ("PFOA") and/or perfluorooctane sulfonic acid ("PFOS"), and/or contained the precursors of PFOS and PFOA, which include but may not be limited to PFBS, PFHpA, PFHxS. These are collectively referred to herein as "PFAS".
- 4. PFAS are toxic, do not biodegrade, are persistent in the environment, move easily through soil and groundwater, absorb into concrete, and pose a significant risk to human health and safety.
- 5. PFAS are associated with a variety of illnesses, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), and hypercholesterolemia. The chemicals are particularly dangerous for pregnant women and young children.
- 6. Defendants were aware since the 1960's and 70's that PFAS were toxic, do not biodegrade, are persistent in the environment, move easily through soil and groundwater and pose a significant risk to human health and health and safety, but elected to use these chemicals and not warn their customers, placing profits over human health.

- 7. In the early 1960's, 3M and the United States Naval Research Laboratory developed AFFF to extinguish jet fuel fires, which are largely impervious to water, by smothering them. 3M's AFFF, which is produced through a 3M process called electrochemical fluorination, contained PFOS.
- 8. 3M is the only manufacturer who used the electrochemical fluorination process, and therefore, produced the only AFFF that contained PFOS, as opposed to PFOA.
- 9. Therefore, if PFOS is identified at a site where AFFF was used, the AFFF is a 3M product. Other formulations of AFFF manufactured by the non-3M Defendants are synthesized through telomerization and contain PFAS, but not PFOS.
- 10. In 1967, the Department of Defense ("DoD") first issued military specification Mil-F-24385 ("Mil Spec"), which included the DoD's requirements for AFFF liquid concentrate fire extinguishing agents. The Mil Spec covered "the requirements for [AFFF] liquid concentrate fire extinguishing agent consisting of fluorocarbon surfactants and foam stabilizers."
- 11. The Mil Spec does not include any requirements regarding the chemical characteristics of the "fluorocarbon surfactants" in Mil Spec compliant AFFF.
- 10. Upon information and belief, instructions, labels and material safety data sheets were provided with the AFFF by Defendants, which, at least at significant times, did not fully describe the health and environmental hazards of AFFF or the hazardous constituents, active or not, contained therein which Defendants knew or should have known.
- 11. Upon information and belief, Defendants had known of these health and environmental hazards for years, yet failed to warn the users and other sensitive receptors, such as public water providers. Defendants elected to include PFAS in their AFFF; there was no requirement.

- 12. Civilian and military airports, fire departments and industrial facilities, unaware of the environmental and health risk and hazards of using Defendants' AFFF, used AFFF containing PFAS for decades for firefighting and training. These sites have been linked to the widespread contamination of surface and groundwater, as well as public drinking water wells, with PFAS throughout the country.
- 13. Defendants' AFFF has been used for almost 50 years at the Wright-Patterson Air Force Base ("WPAFB"). During routine training exercises, AFFF has been sprayed directly on the ground and/or tarmac at several fire training areas, allowing PFAS to travel to the surrounding groundwater, causing contamination of various City water supply wells, in various locations, in varying amounts, at various times.
- 14. In addition to routine training for personnel, additional releases of AFFF have occurred at the WPAFB through testing of the equipment, false alarms, equipment malfunctions, and other incidental releases in the hangers, fire stations and other locations.
- 15. The City also owned and operated its own Fire Training Center ("FTC") where it trained firefighters to use AFFF, causing additional releases of the Manufacturing Defendants' AFFF containing PFAS.
- 16. Once the Defendants' AFFF was released into the environment, whether on the ground, into the air, or through storm and wastewater systems, the PFAS eventually contaminated the City's groundwater wells.
- 17. There is no natural sink for the Manufacturing Defendants' AFFF containing PFAS. Except for incineration above 10,000 degrees, Defendants' PFAS eventually accumulate in the water and all living organisms- including the blood and organs of humans.

- 18. Defendants knew or should have known that PFAS are highly soluble in water, extremely mobile, persistent, and very likely to contaminate drinking water wells and present significant risks to human health and welfare if released into the environment.
- 19. Nevertheless, Defendants manufactured, marketed, and sold their AFFF with the knowledge that PFAS would be released into the environment in firefighting training and rescue exercises, inadvertent releases, false alarms, as well as in emergencies.
- 20. Defendants' AFFF products containing PFAS, in unchanged form, were discharged into the environment through the foreseeable training, storage and use of the AFFF at the WPAFB and FTC.
- 21. Defendants' AFFF products containing PFAS contaminated the groundwater supply from which Plaintiff draws water for its customers.
- 22. Plumes of PFAS can persist in underground aquifers for many decades. Once the plume reaches a well, it continues to contaminate the water drawn from that well. The most viable technologies to remove PFAS from the groundwater are granulated activated carbon ("GAC"), reverse osmosis, and ion exchange.
- 23. The City brings this action to recover damages incurred and to be incurred by the City in investigating, monitoring, remediating, treating and otherwise responding to the PFAS water contamination to stem the threat to public health and the environment caused by Defendants' AFFF products, and ensure the cost of the water treatment be borne by the polluters; not the City of Dayton and its hard working, rate-paying residents.

THE PARTIES

24. Plaintiff has its principal place of business located at 101 W. 3rd Street in Dayton, Ohio.

- 25. Through the City's Water Department, the City provides high quality, safe, potable water to over 400,000 people from the groundwater.
 - 26. Groundwater is the sole source of drinking water for the region.
- 27. The City's service area includes most of Montgomery County, including Dayton, Kettering, Riverside, Centerville, Trotwood, Harrison Township, Brookville, customers in Greene County, and extends north to serve Dayton International Airport, over 65 sq. miles. Its lines carry an average of 65 MGD (million gallons/day).
- 28. Dayton operates two (2) well fields that contain dozens of supply wells, two (2) Water Treatment Plants, one (1) lime recovery facility, two (2) main pumping stations, six (6) Booster Pumping Stations and eleven (11) Water Storage Facilities.
- 29. After the PFAS contamination was discovered at the WPAFB in the summer of 2016, the City proactively tested its wells that were closest to the FTC, those in the Tait's Hill portion of the Mad River Wellfield ("Tait's Hill").
- 30. Sampling in October 2016 confirmed the presence of PFAS in the Tait's Hill portion of the Mad River Well Field.
- 31. Groundwater sampling results confirmed the presence of PFBS, PFHxS and PFNA contamination in most wells of the Mad River Well Field area.
- 32. Additional proactive testing evidenced more contaminated wells in the Huffman Dam portion of the Mad River Well Field ("Huffman Dam"). In total, the City has been forced to shut down approximately fourteen (14) supply wells due to the PFAS groundwater contamination. The City is actively monitoring the PFAS contamination and its risk to its water supply.

- 33. Consequently, Plaintiff has incurred and will incur expenses to deal with the contaminated water and infrastructure modifications to ensure each residential and commercial property is served clean and safe water.
 - 34. Plaintiff will also incur future sampling costs for PFAS.
- 35. Defendant 3M Company (f/k/a Minnesota Mining and Manufacturing Company) ("3M") is a corporation organized and existing under the laws of the state of Delaware, having its principal place of business at 3M Center, St. Paul, Minnesota 55133.
- 36. Beginning before 1970 and until at least 2002, 3M manufactured, distributed, and sold AFFF containing PFOS.
- 37. 3M was the only company that manufactured or sold AFFF containing PFOS, and was also the largest manufacturer and importer of PFOA until 2000.
- 38. 3M manufactured and/or distributed and/or sold AFFF foam containing PFOS which was used at the WPAFB and/or FTC.
- 39. Defendant Tyco Fire Products LP ("Tyco") is a limited partnership formed in the State of Delaware with its principal place of business at 1400 Pennbrook Parkway, Landsdale, Pennsylvania 19446. Tyco is an indirect subsidiary ultimately wholly owned by Johnson Controls International plc, an Irish public limited company listed on the New York Stock Exchange [NYSE: JCI].
- 40. Tyco is the successor in interest of The Ansul Company ("Ansul"), having acquired Ansul in 1990. (Ansul and Tyco (as the successor in interest to Ansul), will hereinafter be collectively referred to as "Tyco/Ansul.")
- 41. Beginning in or around 1975, Ansul manufactured and/or distributed and sold AFFF that contained fluorocarbon surfactants containing PFOA. After Tyco acquired Ansul in

- 1990, Tyco/Ansul continued to manufacture, distribute and sell AFFF that contained fluorocarbon surfactants containing PFOA.
- 42. Tyco/Ansul manufactured and/or distributed and/or sold AFFF foam containing PFAS which was used at the WPAFB and/or FTC.
- 43. Defendant Chemguard is a Texas corporation with its principal place of business at One Stanton Street, Marinette, Wisconsin 54143.
- 44. Beginning in or around 1994, Chemguard began manufacturing AFFF that contained PFAS.
- 45. Chemguard manufactured and/or distributed and/or sold AFFF foam containing PFAS which was used at the WPAFB and/or FTC.
- 46. Defendant Buckeye Fire Equipment Company ("Buckeye") is a foreign corporation organized and existing under the laws of the state of Ohio, with its principal place of business at 110 Kings Road, Kings Mountain, North Carolina 28086.
- 47. Buckeye manufactured, distributed and/or sold AFFF containing PFAS which was used at the WPAFB and/or FTC.
- 48. Defendant National Foam, Inc. (a/k/a Chubb National Foam) (collectively "National Foam") is a Delaware corporation, having a principal place of business at 144 Junny Road, Angier, North Carolina 27501.
- 49. At all times relevant, National Foam designed, manufactured, and sold AFFF used in training operations and for emergency fire-fighting situations including at the WPAFB and/or FTC.
- 50. DuPont Chemical Solutions Enterprise, was a Delaware Corporation, with a principal place of business located at 1007 Market Street Wilmington, Delaware 19898.

- 51. DuPont Chemical Solutions Enterprise was a member of the Telomer Research Program ("TRP"). As a member, it was required to provide a list and volume of products it was selling in the United States on a yearly basis.
- 52. In a letter addressed to the Office of Pollution Prevention and Toxics (OPPT) Document Control Office, dated May 14, 2003 and signed by Stephen H. Korzeniowski, DuPont provided its Telomer-based sales products in the United States for the year 2002.
- 53. The letter, which was redacted and sent to the USEPA under its PFOA Stewardship Program, included Aqueous Fire Fighting Foam (AFFF) sales volume, on an active ingredient pound basis, as well as its Chemical Abstracts Service (CAS) number and chemical name, and is included in the PFOA Stewardship Program Docket.¹
- 54. Upon information and belief, at all times relevant, DuPont Chemical Solutions Enterprise designed, manufactured, and sold AFFF and/or the PFAS constituents in AFFF, that was used in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.
- 55. Defendant, E.I. Du Pont de Nemours & Co. ("DuPont"), successor in interest to DuPont Chemical Solutions Enterprise, is a Delaware Corporation and does business throughout the United States, including conducting business in Ohio. Its principal place of business is 974 Centre Road, Wilmington, Delaware 19805.
- 56. Upon information and belief, at all times relevant to the present litigation, DuPont designed, manufactured and sold AFFF used for training and to fight fires at numerous military bases and other locations throughout the country, including in training operations and for

¹ https://www.regulations.gov/docket?D=EPA-HQ-OPPT-2006-0621.

emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.

- 57. Defendant Chemours Company, successor in interest to DuPont Chemical Solutions Enterprise, is a Delaware Corporation and conducts business throughout the United States, including conducting business in Ohio. Its principal place of business 1007 Market Street, Wilmington, Delaware, 19899.
- 58. Upon information and belief, at all times relevant to the present litigation, Chemours designed, manufactured and sold AFFF used for training and to fight fires at numerous military bases and other locations throughout the country, including in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.
- 59. Defendant The Chemours Company FC, L.L.C., successor in interest to DuPont Chemical Enterprise, is a Delaware Corporation and conducts business throughout the United States, including conducting business in Ohio. Its principal place of business is 1007 Market Street Wilmington, Delaware, 19899.
- 60. Upon information and belief, at all times relevant to the present litigation, Chemours Company designed, manufactured and sold AFFF used for training and to fight fires at numerous military bases and other locations throughout the country, including in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.
- 61. Defendant Dynax Corporation is a Delaware Corporation that conducts business throughout the United States, including business in Ohio. Its principal place of business is 103 Fairview Park Drive Elmsford, New York, 10523-1544.

- 62. In 1991, Dynax Corporation entered the AFFF business, quickly becoming a leading global producer of fluorosurfactants and fluorochemical foam stabilizers used in firefighting foam agents.
- 63. Upon information and belief, at all times relevant to the present litigation, Dynax designed, manufactured and sold AFFF and/or PFAS constituents in AFFF that was used at in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.
- 64. Defendant Corteva, Inc. is a Delaware Corporation that conducts business throughout the United States, including business in Ohio. Its principal place of business is 974 Centre Rd. Wilmington, Delaware 19805.
- 65. Upon information and belief, at all times relevant to the present litigation, Corteva designed, manufactured and sold AFFF and/or PFAS constituents in AFFF that was used in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.
- 66. Defendant Dupont de Nemours formerly known as DowDuPont, Inc. is a Delaware Corporation that conducts business throughout the United States, including business in Ohio. Its principal place of business is 1999 Bryan Street Suite 900 Dallas, Texas 75201.
- 67. Upon information and belief, at all times relevant to the present litigation, DuPont manufactured, designed and sold AFFF and/or PFAS constituents in AFFF that was in training operations and for emergency fire-fighting situations including at the WFAFB and/or FTC that contaminated Dayton's wells.

JURISDICTION AND VENUE

- 68. This Court has jurisdiction pursuant to 28 U.S.C. § 1332 (a) because the parties are diverse and the amount in controversy exceeds \$75,000.
- 69. This Court has jurisdiction over Defendants because, based on information and belief, each is a corporation or other business that has sufficient minimum contacts in Ohio or otherwise intentionally avails itself of the Ohio market either through the distribution or sale of AFFF products in the State of Ohio so as to render the exercise of jurisdiction over it by this Court consistent with tradition notions of fair play and substantial justice.
- 70. Venue is proper in this District under 28 U.S.C. § 1391(b)(2) because the events, omissions and harms that are the basis of Plaintiff's claims occurred in substantial party in this District.

FACTUAL ALLEGATIONS AS TO ALL COUNTS

A. Background of PFAS and The Known Risk to Groundwater

- 71. Poly- and per-fluoroalkyl substances (PFAS) are chemical compounds containing fluorine and carbon atoms. These substances have been used for decades in the manufacture of, among other things, household and commercial products that resist heat, stains, oil, and water. These substances are not naturally occurring and must be manufactured.
- 72. The two most widely studied types of these substances are PFOA and PFOS, which each contain eight carbon atoms.
- 73. PFOA and PFOS have unique properties that cause them to be: (i) mobile and persistent, meaning that they readily spread into the environment where they break down very slowly; (ii) bioaccumulative and biomagnifying, meaning that they tend to accumulate in organisms and up the food chain; and (iii) toxic, meaning that they pose serious health risks to

humans and animals. Because PFOA and PFOS have these properties, they pose significant threats to public health and the environment.

- 74. PFOA and PFOS easily dissolve in water, and thus they are mobile and readily spread in the environment. PFOA and PFOS also readily contaminate soils and leach from the soil into groundwater, where they can travel significant distances.
- 75. PFOA and PFOS are characterized by the presence of multiple carbon-fluorine bonds, which are exceptionally strong and stable. As a result, PFOA and PFOS are thermally, chemically, and biologically stable and they resist degradation due to light, water, and biological processes.
- 76. Bioaccumulation occurs when an organism absorbs a substance at a rate faster than the rate at which the substance is lost by metabolism and excretion. Biomagnification occurs when the concentration of a substance in the tissues of organisms increases as the substance travels up the food chain.
- 77. PFOA and PFOS bioaccumulate/biomagnify in numerous ways. They are relatively stable once ingested, so that they bioaccumulate in individual organisms for significant periods of time. Because of this stability, any newly ingested PFOA and PFOS will be added to any PFOA and PFOS already present. In humans, PFOA and PFOS remain in the body for years.
- 78. They biomagnify up the food chain, such as when humans eat fish that have ingested PFOA or PFOS.
- 79. Exposure to PFOA and PFOS can be toxic and may pose serious health risks to humans and to animals. Human health effects associated with PFOA exposure include kidney and testicular cancer, thyroid disease, high cholesterol, ulcerative colitis, liver damage, and pregnancy-induced hypertension (also known as preeclampsia). Human health effects associated

with PFOS exposure include immune system effects, changes in liver enzymes and thyroid hormones, low birthweight, high uric acid, and high cholesterol. In laboratory testing on animals, PFOA and PFOS have caused the growth of tumors, changed hormone levels, and affected the function of the liver, thyroid, pancreas, and immune system.

B. Defendants' Development of AFFF Products Containing PFAS

- 80. In the 1940s, 3M began using a process called electrochemical fluorination to create carbon-fluorine bonds, which are key components of PFAS. 3M soon discovered that these types of substances have strong surfactant properties, meaning that they reduce the surface tension between a liquid and another liquid or solid. This reduced surface tension enabled 3M to develop a myriad of products that resist heat, stains, oil, and water. These products included older forms of Scotch Gard, which contained PFOS and when applied to fabric, furniture, and carpets protected against liquids and stains.
- 81. Building on these earlier experiments, in the early 1960s 3M began developing firefighting foams containing PFOS to suppress flammable liquid fires, which cannot be effectively extinguished with water alone.
- 82. AFFF does not have the same problems that water alone does in extinguishing flammable liquid fires. AFFF concentrate forms foam when it is mixed with water and ejected from a nozzle. That foam is then sprayed so that it coats the fire, blocking the supply of oxygen feeding the fire and creating a cooling effect and evaporation barrier to extinguish the vapors on fire. A film also forms to smother the fire after the foam has dissipated.

C. Defendants' Knowledge of the Threats to Public Health and the Environment Posed by PFAS

83. By at least the end of the 1960s, animal toxicity testing performed by 3M and DuPont Chemical Solutions Enterprise indicated that exposure to such materials, including at

least PFOA, resulted in various adverse health effects among multiple species of laboratory animals, including toxic effects to the liver, testes, adrenals, and other organs and bodily systems.

- 84. By at least the end of the 1960s, additional research and testing performed by 3M and DuPont Chemical Solutions Enterprise indicated that such materials, including at least PFOA, because of their unique chemical structure, were resistant to environmental degradation and would persist in the environment essentially unaltered if allowed to enter the environment.
- 85. By at least the end of the 1970s, additional research and testing performed by 3M and DuPont Chemical Solutions Enterprise indicated that one or more such materials, including at least PFOA and PFOS, because of their unique chemical structure, would bind to proteins in the blood of animals and humans exposed to such materials where such materials would not only remain and persist over long periods of time but would accumulate and build up in the blood/body of the exposed individuals with each additional exposure, no matter how small.
- 86. On information and belief, by at least the 1970s 3M and DuPont Chemical Solutions Enterprise knew or should have known that PFOA and PFOS are mobile and persistent, bioaccumulative and biomagnifying, and toxic.
- 87. Upon information and belief, 3M and DuPont Chemical Solutions Enterprise concealed from the public and government agencies its knowledge of the risk of harm posed by PFOA and PFOS.
- 88. In 1975, 3M concluded that PFOS was present in the blood of the general population. Since PFOA and PFOS are not naturally occurring, this finding should have alerted 3M to the possibility that their products were a source of this PFOS. The finding also should have alerted 3M to the possibility that PFOS might be mobile, persistent, bioaccumulative, and

biomagnifying, as those characteristics could explain the absorption of PFOS in blood from 3M's products.

- 89. In 1976, 3M found that PFOA was persistent in the blood of its workers. This finding should have alerted 3M to the same issues raised by the findings regarding PFOS in the prior year.
- 90. 3M communicated its findings to DuPont Chemical Solutions. Both chose not to disclose this information to regulators.
- 91. A 1978 study by 3M showed that PFOA reduced the survival rate of fathead minnow fish eggs.
- 92. Other studies by 3M in 1978 showed that PFOS and PFOA are toxic to rats, and that PFOS is toxic to monkeys. In one study in 1978, all monkeys died within the first few days of being given food contaminated with PFOS.
- 93. Studies by 3M after the 1970s also showed adverse effects from exposure to PFOA and PFOS.
- 94. In a 1983 study, for example, 3M found that PFOS caused the growth of cancerous tumors in rats.
- 95. A study proposal by 3M in 1983 stated that the resistance to degradation of PFOA and PFOS made them "potential candidates for environmental regulations, including further testing requirements under laws such as the Toxic Substances Control Act." 3M Environmental Laboratory (EE & PC), Fate of Fluorochemicals Phase II, at p.6 (E. A. Reiner, ed. May 20, 1983).
- 96. By at least the end of the 1980s, additional research and testing performed by Defendants manufacturing and/or using PFAS materials, including at least 3M and DuPont

Chemical Solutions Enterprise, indicated that elevated incidence of certain cancers and other adverse health effects, including elevated liver enzymes and birth defects, had been observed among workers exposed to such materials, including at least PFOA, but such data was not published, provided to governmental entities as required by law, or otherwise publicly disclosed at the time.

- 97. By at least the end of the 1980s, Defendants, including at least 3M and DuPont Chemical Solutions Enterprise, understood that, not only did these PFAS materials, including at least PFOA and PFOS, get into and persist and accumulate in human blood and in the human body, but that once in the human body and blood, particularly the longer-chain PFAS materials, such as PFOS and PFOA, had a long half-life, meaning that they would take a very long time (years) before even half of the material would start to be eliminated (assuming no further exposures), which allowed increasing levels of the chemicals to build up and accumulate in the blood and/or body of exposed individuals over time, particularly if any level of exposures continued.
- 98. By at least the end of the 1990s, additional research and testing performed by Defendants manufacturing and/or using PFAS materials, including at least 3M and DuPont Chemical Solutions Enterprise, indicated that at least one such PFAS material, PFOA, had caused a triad of tumors (Leydig cell (testicular), liver, and pancreatic) in a second chronic cancer study in rats.
- 99. In its amendments to the Polymer Exemption Rule in 1995, the EPA added PFAS chemicals, those containing halogen compounds, because the information provided to the EPA by the manufacturers indicated that PFAS were environmentally stable and would not present an unreasonable risk to human health and the environment.

- 100. A 1997 material safety data sheet ("MSDS") for a non-AFFF product made by 3M listed its only ingredients as water, PFOA, and other per-fluoroalkyl substances and warned that the product includes "a chemical which can cause cancer." The MSDS cited "1983 and 1993 studies conducted jointly by 3M and DuPont" as support for this statement. On information and belief, 3M's MSDSs for AFFF did not provide similar warnings.
- 101. In 2001 the AFFF manufacturers formed the Fire Fighting Foam Coalition ("FFFC"). None chose to disclose what all knew about the unreasonable risk PFAS had to human health and the environment.
- 102. On information and belief, all defendants knew or should have known that in its intended and/or common use, AFFF containing PFAS would very likely injure and/or threaten public health and the environment. On information and belief, this knowledge was accessible to all defendants. For example, in 1970 a well-established firefighting trade association was alerted to the toxic effects on fish of a chemical compound related to PFOS. On information and belief, at least the following defendants are and/or were members of this trade association: 3M, Tyco/Ansul, Chemguard, and National Foam/Angus.
- 103. Additionally, on information and belief, all defendants knew or should have known that their AFFF products and the PFAS the products contained, easily dissolve in water, because the products were designed to be mixed with water; are mobile, because the products were designed to quickly form a thin film; resist degradation, because that is the nature of the products' chemical composition, and on information and belief the products had long shelf-lives; and tend to bioaccumulate, because studies regarding the presence of substances with carbon-fluorine bonds in the blood of the general population were publicly available beginning in at least 1976.

- 104. Federal law requires chemical manufacturers and distributors to immediately notify the United States Environmental Protection Agency ("EPA") if they have information that "reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment." Toxic Substances Control Act ("TSCA") § 8(e), 15 U.S.C. § 2607(e).
- 105. 3M did not comply with its duty under TSCA to provide the EPA with information about the risk to human health and the environment, and in April 2006 it agreed to pay EPA a penalty of more than \$1.5 million for its failure to disclose studies regarding PFAS dating back decades, among other things. DuPont also did not comply with its duty under TSCA and the Resource Conservation and Recovery Act (RCRA), and in 2005 agreed to pay \$10.25 million, the largest civil administrative penalty EPA had ever obtained to that date under any federal statute. The TSCA violations of Section 8(e) specifically addressed the company's failure to report to the EPA the substantial risks of PFOA.
- 106. Thereafter, on January 25, 2006 EPA Administrator Stephen L. Johnson invited the eight major PFOA manufacturers to participate in a global stewardship program, asking them to reduce PFOA emissions by 95 percent by 2010 and end all use by 2015.
- 107. On March 7, 2006 EPA issued a proposed rule to amend the Polymer Exemption Rule, stating that based on new information it had learned it could no longer make the determination that PFAS will not present an unreasonable risk to human health or the environment. And further, that PFAS have a high level of toxicity and have shown liver, developmental, and reproductive toxicity at very low dose levels in laboratory animals.

D. Evolving Understanding of the Levels of Acceptably Safe Exposure to PFAS

- 108. As discussed above, neither 3M, DuPont nor, on information and belief, the other defendants, complied with their obligations to notify EPA about the "substantial risk of injury to health or the environment" posed by their AFFF products containing PFAS. See TSCA § 8(e).
- 109. In or around 1998, EPA began investigating the safety of PFAS after some limited disclosures by 3M and others.
- 110. Beginning in 2009, EPA issued health advisories about the levels of exposure to PFAS in drinking water that it believed were protective of public health. As described on EPA's website, "health advisories are non-enforceable and non-regulatory and provide technical information to states [,] agencies and other health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination." *Drinking Water Health Advisories for PFOA and PFOS, What's A Health Advisory*, available at https://www.epa.gov/ground-water-and-drinking-water/drinking-waterhealth-advisories-pfoa-and-pfos (last visited June 5, 2018).
- 111. The recommendations in EPA's health advisories evolved as EPA learned more about PFAS.
- 112. On January 8, 2009 EPA issued Provisional Health Advisories for PFOA and PFOS, advising that "action should be taken to reduce exposure" to drinking water containing levels of PFOA and PFOS exceeding 400 parts per trillion ("ppt") and 200 ppt, respectively. Provisional Health Advisories for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), available at https://www.cpa.gov/sites/productionlfiles/2015 0-9/documents/pfoa-pfos-provisional.pdf, at p. 1, n. 1 (last visited June 5, 2018).
- 113. On or around May 19, 2016, the EPA issued updated Drinking Water Health Advisories for PFOA and PFOS, recommending that drinking water concentrations for PFOA

and PFOS, either singly or combined, should not exceed 70 ppt. See Lifetime Health Advisories and Health Effects Support Documents for PFOA and PFOS, 81 Fed. Reg. 33,250-51 (May 25, 2016).

E. The Use of Defendants' AFFF Products Containing PFAS in Ohio

- 114. Defendants' AFFF products containing PFAS have been used for decades throughout Ohio at civilian airports and other facilities, including the WPAFB and FTC.
- 115. On information and belief, defendants manufactured and sold AFFF products containing PFAS that were used and discharged at the WPAFB and FTC.
- 116. Pursuant to Federal Aviation Administration ("FAA") regulations, airport staff were required to perform an AFFF foam test twice a year. During these tests, typically one or two buckets of foam (about 5-10 gallons) were discharged from each piece of equipment to get a reading of the percentage of the mix coming out of each nozzle.
- 117. Due to the Defendants' failure to warn and advise the user that the AFFF should not be permitted to enter the soil, water, or groundwater, the AFFF was left to enter into the soil or simply washed off the tarmac.
- 118. Defendants failed to warn the end user and sensitive receptors, such as public water suppliers, that AFFF permeates through the ground to the groundwater.
- 119. Defendants further failed to warn the end user that the AFFF soaks into the concrete or asphalt tarmac to slowly release PFAS into the subsurface and groundwater over decades.
- 120. Sampling results of surface water, groundwater, and soil, at or near the WPAFB demonstrate the presence of elevated concentrations of PFAS, which were components in Defendants' AFFF products.

- 121. On information and belief, Defendants did not provide adequate warnings regarding the public health and environmental hazards associated with their AFFF products containing PFAS. Nor did Defendants provide adequate instructions about how to avoid or mitigate such hazards.
- 122. Defendants' AFFF products were used in the normal, intended, and foreseeable manner that resulted in the discharge of PFAS into the environment and drinking water supplies of the City.

F. AFFF Containing PFAS Is Fungible and Commingled in the Groundwater

- 123. AFFF containing PFAS, once it has been released to the environment and groundwater, lacks characteristics that would enable identification of the company that manufactured that particular AFFF.
- 124. The process of manufacture and distribution of AFFF, including that which contains PFAS, sometimes includes complex arrangements whereby Defendants sell product for delivery through specific military bases and/or third-party logistic intermediaries throughout the country.
- 125. A subsurface plume, even if it comes from a single location, such as a retention fire training area, most likely originates from mixed batches of AFFF coming from different manufacturers.
- 126. There were several areas located around the WPAFB where firefighting exercises were historically conducted, as well as the FTC, where AFFF was used and entered the groundwater and it is not possible to determine the identity of the manufacturer whose AFFF containing PFAS contributed to the groundwater contamination plume impacting Plaintiff's Huffman Dam and Tait's Hill.

- 127. Because precise identification of the specific manufacture of any given AFFF that was the source of PFAS found in Plaintiff's Supply Wells is impossible, Plaintiff must pursue all Defendants, jointly and severally, for those indivisible injuries which Defendants have collectively visited upon Plaintiff.
- 128. Defendants are also jointly and severally liable because they conspired to conceal the true toxic nature of PFAS, to profit from the use of AFFF containing PFAS, at Plaintiff's expense, to contaminate Plaintiff's water supply, and to attempt to avoid liability for such contamination of the groundwater.

G. Alternative Liability, Concert of Action, Enterprise Liability.

- 129. Defendants in this action are manufacturers that control a substantial share of the market for AFFF-containing PFAS in the United States and are jointly responsible for the contamination of Plaintiff's groundwater supply and for causing the damages and injuries complained of in this Complaint.
- 130. Enterprise liability attaches to all Defendants and the liability of each should be assigned according to its percentage of liability for AFFF-containing PFAS at issue in this Complaint. PFAS is fungible; it is impossible to identify the exact Defendant who manufactured any given batch of AFFF containing PFAS found free in the groundwater, and, each of these Defendants participated in a state-wide and national market for AFFF containing PFAS during the relevant time.
- 131. Concert of action liability attaches to all Defendants, each of which participated in a common plan to commit the torts alleged herein and each of which acted tortuously in pursuance of the common plan to knowingly manufacture and sell inherently dangerous AFFF-containing PFAS.

132. Enterprise liability attaches to all of the named Defendants for casting defective products into the stream of commerce.

COUNT I STRICT LIABILITY – DESIGN DEFECT AND/OR DEFECTIVE PRODUCT PURSUANT TO OHIO REV. CODE § 2307.75

- 133. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraphs as if fully stated herein.
- 134. Defendants' AFFF was defective in design or formulation pursuant to Ohio Rev. Code § 2307.75.
- 135. As commercial designers, manufacturers, distributors, suppliers, sellers, and/or marketers of AFFF containing PFAS, Defendants had a strict duty not to place into the stream of commerce a product that is unreasonably dangerous.
- 136. Defendants knew that third parties would purchase AFFF containing PFAS and use it without inspection for defects.
- 137. At the time of manufacture, Defendants knew that the chosen formulation of AFFF, which included, was not biodegradable and bioaccumulated in fish, wildlife, and humans.
- 138. AFFF containing PFAS purchased or otherwise acquired (directly or indirectly) from Defendants by third parties were applied, discharged, disposed of, or otherwise released onto lands and/or water in the vicinity of Plaintiff's water production wells, including but not limited to the WPAFB and FTC. Such discharges occurred at various locations, at various times, and in various amounts.
- 139. The AFFF containing PFAS purchased by third parties was used in a reasonably foreseeable manner and without substantial change in the condition of such products.

- 140. Defendants knew or reasonably should have known that the use of AFFF containing PFAS in its intended manner would foreseeably result in the spillage, discharge, disposal, or release of AFFF onto land or into groundwater supplies.
- 141. The AFFF containing PFAS used in the vicinity of Plaintiff's water production wells was defective in design and unreasonably dangerous because, among other things:
 - a. PFAS causes extensive and persistent groundwater contamination when it, or products containing it, are used in their foreseeable and intended manner.
 - b. PFAS contamination in drinking water poses significant threats to public health and welfare.
 - c. Defendants failed to conduct and/or failed to disclose reasonable, appropriate, or adequate scientific studies to evaluate the environmental fate and transport and potential human health effects of PFAS.
- 142. At all times relevant to this action, AFFF containing PFAS was dangerous to an extent beyond that which would be contemplated by the ordinary consumer, and/or the foreseeable risk of harm to public health and welfare posed by PFAS outweighed the cost to Defendants of reducing or eliminating such risk.
- 143. Defendants knew or should have known about feasible alternatives to producing AFFF without the use of PFAS, and the omission of such alternative designs rendered AFFF not reasonably safe.
- 144. As a direct and proximate result of the defects previously described, Plaintiff's supply wells have been, and continue to be, contaminated with PFAS in varying amounts over time, causing Plaintiff significant injury and damage.
- 145. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFAS contamination of its wells in an amount to be proved at trial.

- 146. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of groundwater. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard of the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.
- 147. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT II STRICT LIABILITY- FAILURE TO WARN PURSUANT TO OHIO REV. CODE § 2307.76

- 148. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.
- 149. As commercial distributors, sellers, manufacturers, suppliers, marketers, and/or designers of AFFF, Defendants had a strict duty to warn against latent dangers resulting from foreseeable uses of the product that Defendants knew or should have known about.
- 150. At the time of marketing, when the AFFF left control of the Defendants, Defendants knew, or in the exercise of reasonable care, should have known that the AFFF was not biodegradable, and that it bioaccumulated in fish, wildlife and humans, and knew they were providing an inadequate warning or instruction about the inherent danger of allowing the AFFF to be dumped on the ground where by runoff or permeation through the ground it would infiltrate groundwater.

- 151. Defendants knew that third parties would purchase AFFF containing PFAS and expect that it was biodegradable and use it at the Fire Training Facility and WPAFB, both locations where runoff would permeate into the Mad River Well Field areas.
- 152. AFFF containing PFAS purchased or otherwise acquired (directly or indirectly) from Defendants by third parties was applied, discharged, disposed of, or otherwise released at various locations, at various times, and in various amounts onto the lands and/or water in the vicinity of Plaintiff's drinking water production wells.
- 153. The AFFF containing PFAS purchased by third parties was used in a reasonably foreseeable manner and without substantial change in the condition of such products.
- 154. Defendants knew or should have known that the use of AFFF containing PFAS in its intended manner would result in the discharge, disposal, or release of PFAS onto land and into groundwater.
- 155. The AFFF containing PFAS used in the vicinity of Plaintiff's Fire Training Center was defective in design and unreasonably dangerous for the reasons set forth above.
- 156. Despite the known and/or reasonably foreseeable hazards to human health and welfare associated with the use of AFFF containing PFAS in the vicinity of Plaintiff's water production wells, including contamination of public drinking water wells with PFAS, Defendants failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.
- 157. In particular, Defendants failed to describe such hazards or provide any precautionary statements regarding such hazards in the labeling of their AFFF products containing PFAS or otherwise.

- 158. As a direct and proximate result of Defendants' failure to warn of the hazards posed by disposal or release of AFFF containing PFAS in the vicinity of subterranean public drinking water wells that were, or reasonably should have been, known to them, PFAS contaminated Plaintiff's supply wells.
- 159. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFAS contamination of its wells in an amount to be proved at trial.
- 160. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of water supply wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.
- 161. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT III NEGLIGENCE

- 162. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.
- 163. As commercial distributers, sellers, manufacturers, suppliers, marketers, and/or designers, Defendants owed a duty of care to Plaintiff not to place into the stream of commerce a product, AFFF, that was in a defective condition and unreasonably dangerous to groundwater.

- 164. Defendants breached this duty by negligently designing, formulating, manufacturing, distributing, selling, supplying, and/or marketing such unreasonably dangerous products into the stream of commerce, including for use at the WPAFB and FTC, even when they knew or should have known of the dangers PFAS posed to public drinking water wells.
- 165. Among other things, Defendants breached this duty when they manufactured, marketed, distributed, supplied, and sold AFFF even though they knew or should have known of the dangers that PFAS posed to groundwater. Defendants should have known that the manner in which they were manufacturing, marketing, and selling AFFF containing PFAS compounds, like PFAS, would result in the contamination of the public supply water wells, including Plaintiff's Mad River Well Field areas at Huffman Dam and Tait's Hill.
- 166. Defendants knew or should have known that exposure to PFAS was hazardous to the environment and to human health.
- 167. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFAS contamination of its Supply Wells in an amount to be proved at trial.
- 168. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of public groundwater supply wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

169. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT IV PUBLIC NUISANCE

- 170. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.
- 171. Plaintiff provides drinking water to its residents to from its groundwater supply wells that is used for drinking, bathing, cleaning, washing, cooking, watering vegetables, and other uses.
- 172. Because Plaintiff is a public entity, the water it provides to its residential and commercial customers is a public and commonly held resource. Members of the public have a right to have their water remain clean, safe, and free of Defendants' toxic contamination.
- 173. Defendants' acts and omissions, including their manufacture, sale, supply, marketing, and defective design of, and/or failure to warn regarding PFAS in AFFF contaminated Plaintiff's wells, rendering water served from them unfit for human consumption and a public health hazard.
- 174. Consequently, Defendants substantially interfered with and caused damage to a public or common resource that endangered public property, as well as the health, safety, and comfort of a considerable number of persons. Such action creates, contributes to, or maintains a public nuisance.
- 175. As an owner of water production wells and purveyor of drinking water, Plaintiff suffers injuries different in kind from the community at large because it relies entirely upon its water production wells for its public service functions.

- 176. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of the groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.
- 177. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT V PRIVATE NUISANCE

- 178. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.
- 179. Plaintiff is the owner of land, easements, and water rights that permit it to extract groundwater for use in its wells to provide drinking water to its customers.
- 180. Defendants' intentional, negligent, and/or reckless conduct, as alleged herein, has resulted in substantial contamination of Plaintiff's supply wells by PFAS, human carcinogens that cause adverse human health effects and render water undrinkable.
- 181. Defendants' manufacture, distribution, sale, supply, and marketing of AFFF containing PFAS was unreasonable because Defendants had knowledge of PFAS unique and dangerous chemical properties and knew that contamination of public groundwater supply wells was substantially certain to occur, but failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.

- 182. The contamination caused, contributed to, and/or maintained by Defendants substantially and unreasonably interferes with Plaintiff's property rights to appropriate, use, and enjoy water from its wells in Huffman Dam and Tait's Hill portions of the Mad River Well Field.
- 183. Each defendant has caused, contributed to, and/or maintained such nuisance, and is a substantial contributor to such nuisance.
- 184. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFAS contamination of Huffman Dam and Tait's Hill portions of the Mad River Well Field in an amount to be proved at trial.
- 185. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of Plaintiff's groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.
- 186. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT VI TRESPASS

187. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

- 188. Plaintiff owns and possesses its drinking water production system, including drinking water production wells that extract groundwater in Montgomery County, Ohio.
- 189. Plaintiff actually and actively exercises its rights to appropriate and use groundwater drawn from its wells, including from Huffman Dam and Tait's Hill portions of the Mad River Well Field.
- 190. Plaintiff did not give any Defendant permission to cause PFAS to enter its groundwater wells.
 - 191. Defendants knew or reasonably should have known that:
 - a. PFAS have a propensity to infiltrate groundwater aquifers when released to the environment;
 - b. PFAS are mobile and persistent groundwater contaminants capable of moving substantial distances within aquifers;
 - c. They are toxic to human health; and
 - d. They are therefore hazardous to public water systems and human health and welfare.
- 192. Defendants manufactured, promoted, marketed, distributed, and/or sold AFFF containing PFAS, which Defendants knew or reasonably should have known would virtually certainly be discharged and release toxic PFAS into the ground and intrude upon, contaminate, and damage Plaintiff's possessory interest.
- 193. Defendants' willful conduct directly resulted in the placement of its product, AFFF, on and in property owned by Plaintiff without permission or right of entry.
- 194. Each Defendant is a substantial factor in bringing about the contamination of Plaintiff's wells, and each Defendant aided and abetted the trespasses and is jointly responsible for the injuries and damage caused to Plaintiff.

- 195. As a direct and proximate result of Defendants' acts and omissions resulting in PFAS entering Plaintiff's Water wells at Huffman Dam and Tait's Hill portions of the Mad River Well Field, Plaintiff sustained actual injuries and damages related to the PFAS contamination of its wells in an amount to be proved at trial.
- 196. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFAS contamination of the public groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.
- 197. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

COUNT VII ALTERNATIVE LIABILITY, CONCERT OF ACTION, ENTERPRISE LIABLITY

- 198. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.
- 199. Defendants in this action are manufactures, distributors, sellers, suppliers and marketers of AFFF containing PFAS that control a substantial share of the market for AFFF in Ohio and are jointly responsible for the increased threat to groundwater in Ohio and for causing the injuries complained of in this Complaint.

- 200. Advances in science and technology have allowed Defendants to create a fungible good that has been shown to harm Plaintiff and its customers and which cannot be traced to any specific producer.
- 201. AFFF containing PFAS is fungible once it is in the groundwater. It is impossible to identify the exact commercial entity that manufactured any given batch of PFAS found free in the environment; and, each of these Defendants participated in a state-wide and national market for AFFF containing PFAS during the relevant time in Dayton, Ohio.
- 202. Concert of action liability attaches to Defendants each of which participated in a common plan to commit the intentional torts alleged herein and each of which acted tortiously in pursuance of the common plan.
- 203. Defendants in this action acted in concert to transport, distribute, supply, sell and/or market AFFF containing PFAS as a safe and effective product for use by the public.
 - 204. Enterprise liability attaches to the named Defendants.
- 205. Because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the Plaintiff, Plaintiff is entitled to punitive damages.

COUNT VIII CONSPIRACY BETWEEN DEFENDANTS

- 206. Plaintiff hereby incorporates by reference the allegations contained in the preceding paragraphs of this Complaint as if restated in full herein.
- 207. Defendants, at least 3M and DuPont Chemical Solutions Enterprise, maliciously conspired among each other, and thereafter with the Fire Fighting Foam Coalition ("FFFC), through unlawful, affirmative misrepresentations and/or unlawful concealment in contravention of the Toxic Substances Control Act (TSCA) of material facts regarding data in their possession

about the substantial risks about the chemicals PFAS, including but not limited to each such act and/or omission described in this Complaint, to illegally and/or wrongfully create and perpetuate a market for PFAS, causing increased and prolonged use of these chemicals for decades, resulting in contamination of Plaintiff's groundwater with PFAS, without the consent, knowledge, permission, and/or awareness, of Plaintiff, and also by illegally and/or wrongfully avoiding properly notifying the public or government officials of the ongoing release and continuing exposure of PFAS into the environment, and illegally and/or wrongfully avoiding correcting, clarifying, rescinding, and/or qualifying their misrepresentations to the EPA, Plaintiff, and the public regarding PFAS.

- 208. The purpose and result of Defendants' and their co-conspirators' conspiracy was to wrongfully and/or unlawfully hide Defendants' illegal and unlawful acts and/or omissions that resulted in the contamination of Plaintiff's groundwater, to improperly minimize, trivialize, and/or misrepresent the actual harm and/or risks of PFAS exposures, to wrongfully and/or unlawfully deceive Plaintiff, into believing that PFAS was safe and/or to avoid lost profits and other economic harm to Defendants.
- 209. Defendants 3M and DuPont knew about the health effects and conspired to keep it a secret by not properly reporting under federal law. As a result, DuPont paid \$10.25 million, as a civil administrative penalty to EPA, to settle violations over DuPont's failure to comply with the requirement that companies report to EPA substantial risk information about chemicals they manufacture, process or distribute in commerce under federal law.
- 210. In addition, DuPont agreed to undertake two Supplemental Environmental Projects (SEPs) valued at \$6.25 million. A SEP is an environmentally beneficial project that the violator agrees to undertake in exchange for mitigation of the penalty to be paid.

- 211. The violations resolved in DuPont's settlement with EPA consist of multiple failures to report information to EPA about substantial risk of injury to human health or the environment that DuPont obtained about PFOA from as early as 1981 and as recently as 2004. The seven Toxic Substances Control Act (TSCA) Section 8(e) counts fall within three types of categories: human health information, environmental contamination, and animal toxicity studies.
- 212. Defendants' and their co-conspirators' conspiracy and the wrongful and/or unlawful acts in furtherance of their conspiracy directly and proximately induced justified reliance by Plaintiff, which directly and proximately caused the contamination of Plaintiff's groundwater with PFAS.
- 213. At the time Defendants and their co-conspirators made their misrepresentations, they knew of the health hazards and/or other risks posed by PFAS to any end user of public water supplies.
- 214. There was great likelihood and/or certainty that serious harm would arise from Defendants' and their co-conspirators' misconduct, Defendants were aware of the likelihood of such harm, Defendants made profits from their and their co-conspirators' misconduct, and Defendants made no effort to disclose and/or remedy their PFAS pollution after discovery of their and their co-conspirators' misconduct.

COUNT IX VIOLATION OF THE "OHIO UNIFORM FRAUDULENT TRANSFERS ACT" O.R.C.A. § 1336 - §1336.12

- 215. Plaintiffs herby incorporate by reference the allegations contained in the preceding paragraphs of this Complaint as if they were set forth at length herein.
- 216. Plaintiffs seek equitable and other relief pursuant to the Ohio Uniform Fraudulent Transfers Act (OUFTA) as adopted by the State of Colorado, against the Defendants.

- 217. Under the OUFTA: "[a] transfer made or obligation incurred by a debtor is fraudulent as to a creditor, whether the claim of the creditor arose before, or within a reasonable time not to exceed four years after the transfer was made or the obligation was incurred, if the debtor made the transfer or incurred the obligation in either of the following ways: (a) With actual intent to hinder, delay, or defraud any creditor of the debtor; or (b) Without receiving a reasonably equivalent value in exchange for the transfer or obligation, and if wither of the following applies: (I) the debtor was engaged or was about to engage in a business or a transaction for which the remaining assets of the debtor were unreasonably small in relation to the business or transaction; or (II) The debtor intended to incur or believed or reasonably should have believed that the debtor would incur, debts beyond his ability to pay as they became due. O.R.C.A. §1336.04
- 218. The OUFTA Defendants have (a) acted with actual intent to hinder, delay and defraud parties, and/or (b) without receiving a reasonably equivalent value in exchange for the transfer or obligation, and (i) were engaged or were about to engage in a business for which the remaining assets of The Chemours Company were unreasonably small in relation to the business; or (ii) intended to incur, or believed or reasonably should have believed that The Chemours Company would incur, debts beyond its ability to pay as they became due.
- 219. OUFTA Defendants engaged in acts in furtherance of a scheme to transfer E. I. du Pont de Nemours and Company's assets out of the reach of parties such as Plaintiffs that have been damaged as a result of the OUFTA Defendants' conduct, omissions, and actions described in this Complaint.
- 220. It is primarily E. I. du Pont de Nemours and Company, rather than The Chemours Company, that for decades manufactured, marketed, distributed and/or sold AFFF containing PFAS and PFAS for use in AFFF with the superior knowledge that they were toxic, mobile, persistent,

bioaccumulative, and biomagnifying, and through normal and foreseen use, would contaminate the Plaintiff's drinking water supply and injure the Plaintiffs.

- As a result of the transfer of assets and liabilities described in this Complaint, the OUFTA Defendants have attempted to limit the availability of assets to cover judgments for all of the liability for damages and injuries from the manufacturing, marketing, distribution and/or sale of AFFF containing PFAS and PFAS for use in AFFF.
- 222. At the time of the transfer of its Performance Chemicals Business to The Chemours Company, E. I. du Pont de Nemours and Company had been sued, threatened with suit and/or had knowledge of the likelihood of litigation to be filed regarding DuPont's liability for damages and injuries from the manufacturing, marketing, distribution and/or sale of AFFF containing PFAS and/or PFAS compounds for use in AFFF.
- 223. The OUFTA Defendants acted without receiving a reasonably equivalent value in exchange for the transfer or obligation, and E. I. du Pont de Nemours and Company believed or reasonably should have believed that The Chemours Company would incur debts beyond The Chemours Company's ability to pay as they became due.
- 224. At all times relevant to this action, the claims, judgment and potential judgments against The Chemours Company potentially exceed The Chemours Company's ability to pay.
- 225. Pursuant to O.R.C.A. § 1336 et seq. Plaintiffs seek avoidance of the transfer of E. I. du Pont de Nemours and Company's liabilities for the claims brought in this Complaint and to the OUFTA Defendants liable for any damages or other remedies that may be awarded by the Court or jury under this Complaint.
- 226. Plaintiffs further seek all other rights and remedies that may be available to it under OUFTA, including prejudgment remedies as available under applicable law, as may be necessary to

fully compensate Plaintiffs for the damages and injuries they have suffered as alleged in this Complaint.

PRAYER FOR RELIEF

WHEREFORE, the City of Dayton prays for a judgment against these Defendants for:

- 1. Dayton is not asking for any equitable or injunctive relief, but compensatory damages only;
- 2. Compensatory damages in an amount to be demonstrated and proven at trial but which is:
 - a. Above the jurisdictional minimum of this court on the First Cause of Action;
 - b. Above the jurisdictional minimum of this court on the Second Cause of Action;
 - c. Above the jurisdictional minimum of this court on the Third Cause of Action; and
 - d. Above the jurisdictional minimum of this court on the Fourth Cause of Action;
 - e. Above the jurisdictional minimum of this court on the Fifth Cause of Action;
 - f. Above the jurisdictional minimum of this court on the Sixth Cause of Action; and
 - g. Above the jurisdictional minimum of this court on the Seventh Cause of Action;
 - h. Above the jurisdictional minimum of this court on the Eighth Cause of Action and
- 3. Punitive damages in an amount to be determined at trial;
- 4. Interest on the damages according to law;
- 5. Costs, disbursements and attorneys' fees of this lawsuit; and
- 6. Any other and further relief as the Court deems just, proper and equitable.

JURY DEMAND

Plaintiff demands a trial by jury of all claims asserted in this Complaint.

Dated: August 30, 2019

Respectfully submitted,

NAPOLI SHKOLNIK PLLC

By: Paul J. Napoli
Paul J. Napoli, Esq.
Louis R. Caro, Esq.
Patrick J. Lanciotti, Esq.
360 Lexington Ave., 11th Floor
New York, NY, 10017
Tel: (212) 397-1000
Fax: (646) 843-7603
pnapoli@napolilaw.com
lcaro@napolilaw.com
planciotti@napolilaw.com

CITY OF DAYTON

Barbara J. Doseck, Esq.
City Attorney
John C. Musto, Esq. (0071512)
Chief Trial Counsel
101 West Third Street
P.O. Box 22
Dayton, Ohio 45401
Tel. (937) 333-4100
Fax (937) 333-3628
barbara.doseck@daytonohio.gov
john.musto@daytonohio.gov

DYER, GAROFALO, MANN & SCHULTZ

Pierre Tismo, Esq. (0067924) 131 N. Ludlow, Suite 1400 Dayton, Ohio 45402 Tel: 937.223.8888 Fax: 937.824.8630

ptismo@dgmslaw.com

PLEVIN & GALLUCCI COMPANY, L.P.A.

Frank Gallucci (0072680) David Grant (0065436) 55 Public Square Suite 2222 Cleveland, Ohio 44113 p: 216.861.0804 f: 216.861.5322 fgallucci@pglawyer.com dgrant@pglawyer.com

Attorneys for City of Dayton, Ohio